

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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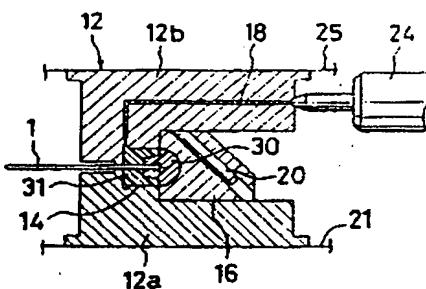
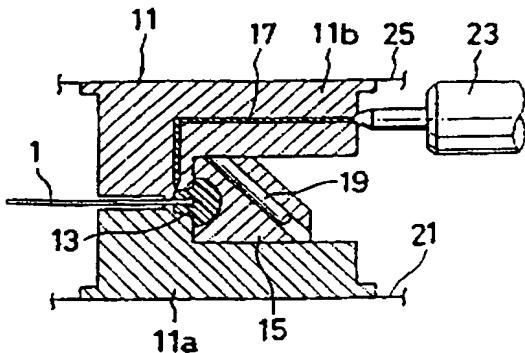
APPLICATION DATE : 10-09-87  
 APPLICATION NUMBER : 62227261

APPLICANT : NISSEI PLASTICS IND CO;

INVENTOR : KOBAYASHI TOSHIHARU;

INT.CL. : H01L 21/56 H01L 33/00

TITLE : METHOD OF SEALING  
 LIGHT-EMITTING DIODE WITH RESIN



**ABSTRACT :** PURPOSE: To enable a light-emitting diode to be sealed with a material having high flowability and high transparency, by conducting first injection molding for preliminarily forming a head section sealing the tip end of a metal frame with resin together with the light-emitting diode and a wire and then conducting second injection molding of a heat-resisting resin for forming a body section integrally under the head section so that the resin sealing body is composed of the head section having a lens face and the body section.

CONSTITUTION: A metal frame 1 is disposed on a stationary part 11a of a primary mold 11 while the tip end of the frame is inserted into a cavity 13. First resin is injected into the cavity 13 slowly under a low pressure by an injector 23 to form a sealing body head 30 having a lens face, whereby the tip end of the frame is sealed primarily. After the resin is cooled and cured, the frame is removed from the mold and transferred to a secondary mold 12. The head section 30 is inserted into a cavity 14 while the lens face thereof is set at the position corresponding to the mold surface of a slide core 16. Then, a cavity for forming body section is defined between the head section 30 and a stationary part 12a and between the head section and a movable part 12b. Resin is injected to the cavity 14 by an injector 24 to form a body section 31 while, simultaneously therewith, a sealing body 32 is formed integrally with the body section 31.

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